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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,770	07/10/2003	Satoshi Mochizuki	240051US2	9477
22850	7590	09/09/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			DOTE, JANIS L.	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/615,770	MOCHIZUKI ET AL.	
	Examiner	Art Unit	
	Janis L. Dote	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
- 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/4/03; 3/22/04; 6/17/04; 8/6/04</u> | 6) <input type="checkbox"/> Other: _____ |

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1. The examiner has considered only the material submitted by applicants, i.e., copies of the originally filed claims, abstract, and figures of the US applications listed in Information Disclosure Statements filed on Mar. 22, 2004, Jun. 17, 2004, and Aug. 6, 2004.

The second listing of US Patent 6,503,676 on the form PTO-1449 filed on Dec. 4, 2003, has been crossed-out by the examiner.

2. The information disclosure statement, in particular the "List of Related Cases," filed on Dec. 4, 2003, does not fully comply with the requirements of 37 CFR 1.98 because: its fails to comply with 37 CFR 1.98(a)(2)(iii), which requires legible copies of those portions of the copending U.S. applications which caused them to be listed in the "List of Related Cases."

Since the submission appears to be bona fide, applicants are given ONE (1) MONTH from the date of this notice to supply the above mentioned omissions or corrections in the information disclosure statement. The examiner notes that if applicants have a postcard receipt stating that the USPTO did receive copies of the documents, applicants should also provide a copy of said receipt so that there is no ambiguity in the record that applicants did provide copies of the missing documents.

NO EXTENSION OF THIS TIME LIMIT MAY BE GRANTED UNDER EITHER 37 CFR 1.136(a) OR (b). Failure to timely comply with this notice will result in the above mentioned information disclosure statements being placed in the application file with the noncomplying information not being considered. See 37 CFR 1.97(i).

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

In Fig. 6, the reference characters 65, 66, 67, 68, 69, 70, 71, 72, 73, 75, 76, 77, 78, 79, and 80.

In Fig. 8, the reference character 600C.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

In Fig. 6, the reference sign 20. See page 92, line 17, of the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The disclosure is objected to because of the following informalities:

(1) The use of trademarks, e.g. Coulter N4 [sic: COULTER N4] at page 35, line 19, has been noted in this application. The trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. This example is not exhaustive. Applicants should review the entire specification for compliance.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be

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respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

(2) The specification at page 71, line 19, to page 72, line 11, refers to reference characters **50K**, **50Y**, **50M**, and **50C** as the development units in Fig. 1. However, these reference characters are not used in Fig. 1. The specification at page 71, lines 6-11, previously discloses that the reference characters **45K**, **45Y**, **45M**, and **45C**, which are present in Fig. 1, represent the development units in Fig. 1.

Appropriate correction is required.

6. The examiner notes that the instant specification at page 69, lines 9-23, discloses that the parameters SF-1 and SF-2 recited in the instant claims are determined from the following equations 1 and 2:

Equation 1. $SF-1 = ((\text{absolute maximum length of a toner particle})^2 / \text{projection area of a toner particle}) \times (\pi/4) \times 100$

Equation 2. $SF-2 = (\text{peripheral length of toner particle})^2 / \text{projection area of a toner particle}) \times (\pi/4) \times 100$

In other words, the "area of the particle of the base toner" in the formulas recited in the instant claims is a "projection area" of the toner base.

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7. The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3 and 6-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 8, 14, and 18 are indefinite in the phrase "inorganic particles are applied with a sol-gel technique and are thereby formed as spherical shaped hydrophobic silica particles" (emphasis added) because it is not clear how a sol-gel technique is "applied" to inorganic particles. The instant specification at pages 103-104 discloses making spherical shape hydrophobic silica particles by a sol gel method.

Claims 6-11 are indefinite in the phrase "apparatus, comprising a developer" because it is not clear what is the structural relationship between the apparatus and the developer. It is not clear how an apparatus comprises a developer. A developer is not a structural element of an apparatus, such as a charging device, but is merely a material or an article that is

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worked upon by the apparatus. The claims do not recite any structural relationship between the apparatus and the developer.

Claims 6-11 are further indefinite in the phrase "the developer includes a further developer and a carrier" (emphasis added) because it is not clear how a developer can further comprise another developer.

Claim 10 is also indefinite in the phrase "developer is combined with a magnetic particle to function as a carrier" because it does not further limit the developer recited in instant claim 6. Instant claim 6 already recites that the developer includes a carrier, which "has a magnetic particle."

Claim 11 is indefinite in the phrase "developer includes a plurality of colors" because it is not clear whether the plurality of colors refers to the colorant comprising a plurality of colors, or to the developer comprising a plurality of the color toners.

Claims 12-16 are indefinite in the phrase "the developer further includes a further developer and a carrier" (emphasis added) because it is not clear how a developer can further comprise another developer.

Claim 16 is further indefinite in the phrase "developer is combined with a magnetic particle to function as a carrier" because it does not further limit the developer recited in

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instant claim 12. Instant claim 12 already recites that the developer includes a carrier, which "has a magnetic particle."

Claims 17-21 are indefinite in the phrase "the developer further includes a further developer and a carrier" (emphasis added) because it is not clear how a developer can further comprise another developer.

Claim 21 is further indefinite in the phrase "developer is combined with a magnetic particle to function as a carrier" because it does not further limit the developer recited in instant claim 17. Instant claim 17 already recites that the developer includes a carrier, which "has a magnetic particle."

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1, 2, 5-7, 10, 17, 18, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,827,632 (Inaba).

Inaba discloses a developer comprising a magnetic carrier and a toner. The toner comprises toner particles comprising a binder resin and a colorant, hydrophobic inorganic fine powder a-1 and hydrophobic silicon compound fine powder (A). The toner particles have a shape factor SF-1 of 109 and a shape factor SF-2 of 120. The shape factors SF-1 and SF-2 are

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determined in the same manner as recited in the instant claims. Col. 7, line 57, to col. 8, line 6. The hydrophobic silicon compound fine powder (A) comprises silica particles and has an average particle diameter of 40 nm. Col. 27, lines 5-8; Table 1, hydrophobic silicon compound fine powder (A); and example 7 at cols. 31-32. The shape factors SF-1 and SF-2 are within the respective ranges recited in instant claims 1, 6, and 17. The hydrophobic silicon compound fine powder (A) meets the limitations regarding the inorganic fine particles recited in instant claims 1, 2, 6, 7, 17, and 18.

Inaba further discloses an image forming apparatus comprising a developing unit 74 comprising the developer described above and a transfer unit 77. Fig. 7; col. 21, line 45, to col. 24, line 29. The apparatus meets the components recited in instant claims 6, 7, and 10. Inaba also discloses an image forming method comprising the steps recited in instant claims 17, 18, and 21, where the developer described above is used to develop the latent image formed on the photoconductor. Fig. 7, col. 21, line 45, to col. 24, line 29; and Table 5 at col. 35, example 7.

13. Claims 1, 4-6, 9, 10, 17, 20, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Inaba.

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Inaba discloses a developer, an image forming apparatus, and method of forming an image, as described in paragraph 12 above, which is incorporated herein by reference.

As discussed in paragraph 12, the developer disclosed by Inaba comprises toner particles, hydrophobic inorganic fine powder a-1 and hydrophobic silicon compound fine powder (A). The hydrophobic silicon compound fine powder (A) comprises silica particles and has an average particle diameter of 40 nm. The hydrophobic inorganic fine powder a-1 has an average particle diameter of 51 μm . Table 1 at col. 30, fine powder a-1. The fine powder a-1 meets the inorganic fine powder limitation recited in instant claims 1, 6, and 17. The hydrophobic silicon compound fine powder (A) meets the "further inorganic fine particles" limitation recited in instant claims 4, 9, and 20.

14. Claims 1, 5, 6, 10, 17, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by European Patent 892,319 A1 (EP' 319).

EP' 319 discloses a developer comprising a magnetic carrier and a toner. The toner comprises toner particles comprising a binder resin and a colorant, and hydrophobic anatase titanium oxide powder. The toner particles have a shape factor SF-1 of

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128 and a shape factor SF-2 of 121. The shape factors SF-1 and SF-2 are determined in the same manner as recited in the instant claims. Page 11, line 58, to page 12, line 13. The hydrophobic anatase titanium oxide powder has an average particle diameter of 0.05 μm (i.e., 50 nm). Toner production Example 4 at pages 24-25; col. 30, line 30; and example 30 at page 31. The shape factors SF-1 and SF-2 are within the respective ranges recited in instant claims 1, 6, and 17. The hydrophobic anatase titanium powder meets the limitations regarding the inorganic fine particles recited in instant claims 1, 6, 12, and 17.

EP'319 further discloses an image forming apparatus comprising a developing unit 10 comprising the developer described above and a transfer unit 14. Fig. 1; page 4, line 45, to page 5, line 7; and example 30 at page 31. The apparatus meets the components recited in instant claims 6 and 10. EP'319 also discloses an image forming method comprising the steps recited in instant claims 17 and 21, where the developer described above is used to develop the latent image formed on the photoconductor. Fig. 1; page 4, line 45, to page 5, line 7; and example 30.

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15. Claims 1-11 and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,177,223 B1 (Hashimoto) combined with US 6,403,271 B1 (Suzuki).

Hashimoto discloses developers comprising a magnetic carrier and a color toner. The color toner comprises color toner particles, which comprise a binder resin, a release agent, and a colorant, and hydrophobic silica powder. Col. 29, lines 27-34 and 55-63; and Table 1 at col. 34, toners A2, A3, and A4. The magenta-colored toner particles of toner A2 have a shape factor SF-1 of 127 and a shape factor SF-2 of 123. The cyan-colored toner particles of toner A3 have a shape factor SF-1 of 123 and a shape factor SF-2 of 121. The yellow-colored toner particles of toner A4 have a shape factor SF-1 of 130 and a shape factor SF-2 of 120. The shape factors SF-1 and SF-2 are determined in the same manner as recited in the instant claims. Col. 14, lines 12-28. The shape factors SF-1 and SF-2 are within the respective ranges recited in instant claims 1, 6, and 17.

Hashimoto further discloses an image forming apparatus comprising a developing unit 4 comprising the developers described above and a transfer unit 7. Fig. 1; col. 21, line 18, to col. 22, line 44; and col. 34, lines 46-50. The developers in the developing unit 4 comprise the toners A2, A3,

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and A4, which meet the limitation that the developer comprises a plurality of colors recited in instant claim 11. Hashimoto also discloses an image forming method comprising the steps recited in instant claim 17, but for the use of a developer comprising the particular inorganic fine particles recited in instant claim 17. The developers described above are used to develop the latent image formed on the photoconductor. Fig. 1, and col. 34, line 46, to col. 35, line 32.

Hashimoto does not exemplify the use of the inorganic fine particles as recited in instant claims 1, 6, and 17. However, as discussed above, Hashimoto's developers comprise an externally added hydrophobic silica powder.

Suzuki teaches developers comprising toner particles combined with hydrophobic spherical silica particles A obtained by a sol-gel method having an average particle size of 135 nm and inorganic particles obtained by subjecting metatitanic acid to an isobutyltrimethoxysilane treatment, which have an average particle size of 35 nm. See monodispersed spherical silica A at col. 17, lines 27-33, and example 9 at col. 23. The hydrophobic spherical silica particles taught by Suzuki meet the limitations regarding the inorganic fine particles recited in instant claims 1-3, 6-9, and 17-19. The inorganic particles obtained by subjecting metatitanic acid to an isobutyltrimethoxysilane

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treatment meet the "further inorganic fine particles" limitation recited in instant claims 4, 9, and 20. According to Suzuki, the use of the hydrophobic spherical silica particles A provides a developer in which "the toner flowability, charging property, the developing property, the transferring property, and the fixing property are simultaneously satisfied in a long period of time." Col. 4, line 48, to col. 5, line 5. Suzuki further discloses that the use of the inorganic particles comprising metatitanic acid ($\text{TiO}(\text{OH})_2$) can provide developers that are excellent in charging property, environment stability, flowability, caking resistance, stable negative charging property, and stable image quality maintenance property. Col. 10, lines 39-43.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Suzuki, to use the hydrophobic spherical silica particles A and metatitanic acid inorganic particles taught by Suzuki as the external additive in the developers disclosed by Hashimoto, because that person would have had a reasonable expectation of successfully obtaining color developers having satisfactory toner flowability, charging property, the developing property, the transferring property, and the fixing property for a long period of time. It also would have been obvious for that person to use the resultant

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developers in the image forming apparatus and image forming method disclosed by Hashimoto, because that person would have had a reasonable expectation of successfully obtaining an image forming apparatus and image forming method that provides satisfactory toner images for a long period of time.

16. Claims 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2003/00118366 A1 (Nukada).

Nukada discloses a process cartridge comprising a particular photoreceptor. Nukada further discloses that the cartridge may further contain units appropriately selected from the charging unit, the exposing unit, the developing unit, the transferring unit, and the cleaning unit previously described in Nukada. Paragraph 0115, lines 1-7. Nukada further discloses that the developing unit may be a unit in which development is conducted with a two-component developer that comprises a toner and carrier. Paragraph 0110, lines 1-12. Thus, Nukada teaches a process cartridge that comprises a charging unit, an exposing unit, a developing unit, a transfer unit, and a cleaning unit.

Nukada does not disclose the use of the particular developer recited in the instant claims. However, the instant claims do not positively recite that the process cartridge comprises the particular developer. Instant claim 12 merely

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recite "a development unit developing the image formed on the photoconductor with a developer." The particular developer recited in the instant claims does not distinguish the structural elements in the instantly claimed process cartridge from those elements in Nukada's process cartridge. A material (i.e., the developer) worked upon by the apparatus does not limit the apparatus claims. "Inclusion of material or article worked upon by a structure being claimed does not impart patentability to the [apparatus] claims." See MPEP 2115. It is well settled, as stated in Ex parte Masham, 2 USPQ2d 1647, 1648 (Bd. Pat. App. & Int. 1987) that "a recitation with respect to the material intended to be worked upon by a claimed apparatus does not impose any structural limitations upon the claimed apparatus which differentiates it from the prior art apparatus satisfying the structural limitations of that claimed." Accordingly, the particular developer recited in the instant claims does not distinguish the instantly claimed process cartridge from the process cartridge disclosed by Nukada.

17. Claims 12, 13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nukada combined with Inaba.

Claims 12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nukada combined with Inaba.

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Nukada discloses a process cartridge as described in paragraph 16 above, which is incorporated herein by reference.

Nukada does not disclose the use of a developer as recited in the instant claims. However, as discussed in paragraph 16 above, Nukada discloses that the developing unit may comprise a developer comprising a toner and a carrier.

Inaba discloses a developer comprising a toner and a carrier as described in paragraphs 12 and 13, supra. The developer meets the developer limitations recited in instant claims 12, 13, and 16 or the developer limitations recited in instant claims 12, 15, and 16. According to Inaba, the developer has excellent performance in continuous image formation on a large number of sheets. Col. 2, lines 21-24, and Table 5, example 7.

It would have been obvious for a person having ordinary skill in the art, in view of the teachings of Inaba, to use the developer in example 7 of Inaba as the developer in the process cartridge disclosed by Nukada, because that person would have had a reasonable expectation of successfully obtaining a process cartridge that provides continuous image formation on a large number of sheets.

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18. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nukada combined with Hashimoto and Suzuki.

Nukada discloses a process cartridge as described in paragraph 16 above, which is incorporated herein by reference.

Nukada does not disclose the use of a developer as recited in the instant claims. However, as discussed in paragraph 16 above, Nukada discloses that the developing unit may comprise a developer comprising a toner and a carrier.

The combined teachings of Hashimoto and Suzuki render obvious a developer, as described in paragraph 15 above, which is incorporated herein by reference. The developer meets the developer limitations recited in instant claims 12-16. In addition, according to Hashimoto, its color developers have good low-temperature fixability and storage stability, and also good continuous image forming characteristics. Col. 5, line 66, to col. 6, line 1; and Table 1, toner particles A2 through A4.

It would have been obvious for a person having ordinary skill in the art to use the developer rendered obvious over the combined teachings of Hashimoto and Suzuki as the developer in the process cartridge disclosed by Nukada, because that person would have had a reasonable expectation of successfully obtaining a process cartridge that provides satisfactory continuous toner images for a long period of time.

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19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

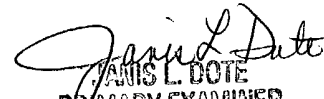
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry of papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Sep. 3, 2004


JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1520
1700